To: Enos, Cassandra@DWR[Cassandra.Enos@water.ca.gov]

Cc: Skophammer, Stephanie[SKOPHAMMER.STEPHANIE@EPA.GOV]; Ben

Giudice[Ben@robertson-bryan.com]

From: Foresman, Erin

Sent: Thur 6/18/2015 4:43:26 PM

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

Hi Cassandra,

Thank you for providing the responses. I really appreciate it. They are helpful. You all are working on a lot of things under difficult timelines. Thank you for making this response a priority.

I hope you have a great rest of your day and a good weekend,

Erin

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Enos, Cassandra@DWR [mailto:Cassandra.Enos@water.ca.gov]

Sent: Thursday, June 18, 2015 7:48 AM

To: Foresman, Erin

Cc: Skophammer, Stephanie; Ben Giudice

Subject: FW: can you help us find the exceedance plots & box and whisker plots?

Erin – Sorry for getting back to you a bit late. Yesterday just got away from me! Below, in red, are our responses to you questions. Please let me know if you need any more information.

Have a nice day, C.

Cassandra Enos-Nobriga

Program Manager

Executive Program Office

Department of Water Resources

901 P Street, Sacramento, CA 95814

Office: (916) 651-0178

Mobile: (916) 835-6981

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]

Sent: Wednesday, June 17, 2015 9:44 AM

To: Ben Giudice

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

Hi Ben & Cassandra,

I have a couple of quick follow up questions on the assimilative capacity analysis that you shared with us on last Friday and from my notes of last Thursday's discussion.

Cassandra, do you know if the charts that Ben sent to us on Friday are included in the material that will become the public draft supplemental DEIS? Was there any resolution on what happened with Appendix B and where the material may have gone? I believe it was supposed to be included in Appendix B and then Appendix B appeared to be v. jumbled.

The charts will be included in the material that will be in the public draft. We are reviewing and revising the appendix material to make sure everything is there.

Here are the questions from our Thursday discussion

- Did the HCP alternatives (Alts 1-9) receive a more detailed analysis, described in writing, of the long-term averages that compose the assimilative capacity analysis similar to what was done for the Section 7 alternatives? No. None of it was described in writing. What was done is discussed below.
- We discussed that evaluating the long-term average chloride concentrations for Alts 1 – 9 showed real assimilative capacity impacts in the LLT. Ben described that the modeling team went back to look at the numbers more closely to make sure the impacts were real. Can you describe to us what information was used to confirm the impacts were real? How was that done? What decision-rules were used to determine if impacts were real or not? Where the assimilative capacity use tables indicated substantial use, we also looked at the seasonal concentration tables to evaluate the magnitude of the chloride increases during months and at locations where the assimilative capacity tables indicated a potential effect. In doing so, we were able to mostly determine where the high increase in assimilative capacity use was due to the long-term averages being very close to the criteria, and thus very small changes (likely within the modeling uncertainty) were causing it to look like a bigger change than it was. In some cases, depending on the magnitude of these changes, we would also look at the absolute value of the longterm averages to assess exactly where they were relative to the criterion. We generally did not look at exceedance plots or box and whisker plots like we did with Alts 4A, 2D, and 5A, or individual year-by-year concentrations. Professional judgment was used to determine whether the modeling was predicting increases in concentrations such that long-term degradation would occur.
- The language in the CI assimilative capacity analysis at Antioch for Alternative 4A in the admin draft changed from "potential to adversely impact M & I beneficial uses" to "not adverse" language as a result of a more detailed review of the assimilative capacity analysis. Would reviewing long-term averages in more detail change other language and/or NEPA conclusions in either direction? For example, would language describing impacts change from not adverse to potentially adverse for a given alternative if reviewing the long-term averages in more detail, similar to the review for 4A, showed that impacts are potentially adverse? We analyzed all alternatives in equivalent level of detail per the requirements of NEPA and CEQA. For Alt 4A, in order to refine the impact avoidance elements of the proposed project, additional time was spent reviewing the water quality data. It is possible that with increased analysis for Alts 1-9, including looking at exceedance plots and box and whisker plots, and looking at the actual yearby-year data, we could arrive at a not adverse finding where currently we indicate adverse impacts. I cannot think of an instance in which the opposite could occur – that increased analysis could change something we indicate as not adverse now could change it to adverse. The nature of the issue here is that the calculation of assimilative capacity can be excessively sensitive if you are close to the objective. That does not mean it is not sensitive enough when you are not close to the objective.

- Will the additional analysis on Emmaton assimilative capacity included in the public draft? The only additional information we discussed was graphs and tables showing that is feasible to reduce the use of assimilative capacity at Emmaton through North vs.
 South Delta diversion management. We were not intending to include this in the draft, but in the final.
- More analysis of the Prisoners point objective was discussed. Just want to confirm that his analysis is of the objective (not assimilative capacity) and that it will not be included in the public draft. Correct me if I'm wrong on that. The analysis was focused on exceedance of the objective, and nothing further is currently planned to be included in the public draft. Updated modeling data that does not include restoration and that shows a lesser level of effect is intended to be shown in the final.

Thank you again for working with us on these issues.

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Ben Giudice [mailto:Ben@robertson-bryan.com]

Sent: Friday, June 12, 2015 3:26 PM

To: Foresman, Erin

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

There are some strange things in those versions. A lot of our material seems to be duplicated and appears in both the first part and second part. Not sure why. I will be coordinating with ICF to make sure the correct material gets in that appendix.

Attached is just the chloride material for 4A, 2D, and 5A. The new figures start at Figure Cl-9 (page 33).

Ben D. Giudice, Ph.D., P.E.

Robertson-Bryan, Inc.

9888 Kent Street

Elk Grove, CA 95624

Phone: (916) 405-8943

Fax: (916) 714-1804

ben@robertson-bryan.com

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]

Sent: Friday, June 12, 2015 1:25 PM

To: Ben Giudice

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

Hi Ben,

Thanks for checking – good to know we're not missing something obvious. I also sent the first half of that appendix. Sorry they were in reverse order. Stephanie and I checked it but also didn't find the new plots. Appendix was so large, Ann had to split it up to send it to us last week.

If you can send the plots by email that will be helpful,

Erin

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Ben Giudice [mailto:Ben@robertson-bryan.com]

Sent: Friday, June 12, 2015 1:22 PM

To: Foresman, Erin

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

It made it through. Unfortunately it looks like the new plots didn't make it into this document. With Cassandra's okay I can send them to you directly. Cassandra – is it okay if I send the new plots for chloride? They were sent to ICF but somehow did not get in this version of Appendix B.

Ben D. Giudice, Ph.D., P.E.

Robertson-Bryan, Inc.

9888 Kent Street

Elk Grove, CA 95624

Phone: (916) 405-8943

Fax: (916) 714-1804

ben@robertson-bryan.com

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]

Sent: Friday, June 12, 2015 1:17 PM

To: Ben Giudice

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

Curious! Let me send you the PDF. This may be rejected but I'll try anyway. It's 13 megs

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Ben Giudice [mailto:Ben@robertson-bryan.com]

Sent: Friday, June 12, 2015 1:08 PM

To: Foresman, Erin

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: RE: can you help us find the exceedance plots & box and whisker plots?

Hi Erin.

I would be happy to – but for some reason I cannot extract or open the PDF in the zipped file. I get generic sounding errors every time, even on different computers. Maybe try zipping it and sending again?

Ben D. Giudice, Ph.D., P.E.

Robertson-Bryan, Inc.

9888 Kent Street

Elk Grove, CA 95624

Phone: (916) 405-8943

Fax: (916) 714-1804

ben@robertson-bryan.com

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]

Sent: Friday, June 12, 2015 1:01 PM

To: Ben Giudice

Cc: Enos, Cassandra@DWR; Skophammer, Stephanie

Subject: can you help us find the exceedance plots & box and whisker plots?

Hi Ben,

Can you help us find the exceedance plots and box and whisker plots? We checked Appendix B and didn't find them. Would they be somewhere else? I forwarded the appendix B that Ann sent to us.

Erin Foresman

US EPA | Environmental Scientist | SF Bay Delta

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 7:30a - 4:00p; T - F 7:30a - 2:00p

From: Stine, Ann [mailto:astine@usbr.gov]
Sent: Wednesday, June 03, 2015 3:11 PM

To: Cathy Marcinkevage; Dan Hytrek; Foresman, Erin; Meegan Nagy; Shelby Mendez; Skophammer, Stephanie; Yvette Redler; Zachary M SPK Simmons; Mike Nepstad; Michael. Tucker

Subject: BDCP RDEIR/SDEIS 060315 ZipFile 7b

All, I had to break up Appendix B for some of you into two Zip Files due to its size. Ann

Notes from ICF on June 1:

Please note the additional file, App 8H-Att-1, Water Quality Technical Memorandum Update; it was not

included in your outline.

Portions of the document that were previously delivered on April 1st and May 1st have been updated in response to comments received from reviewing agencies. ICF also included responses to comments received in tabular format that identify whether text changes have been made in response to comments. ICF made every effort to make as many revisions as possible in the time available but, as discussed previously, we needed to make some decisions for the deliverable based on the quantity of comments received. We are planning to set aside time over the next 2 weeks to discuss addressing additional comments critical for the public draft RDEIR/SDEIS.

We have also attached a detailed outline to guide you in your review. As we discussed on Friday, files highlighted in green and yellow will be sent to you tomorrow morning. The green highlighted sections indicate new analysis being provided as a part of the deliverable or portions of the document being provided for the first time since the Draft EIR/EIS. The yellow highlighted sections indicate sections that have been heavily revised since it was last delivered to you and may indicate changes in significance findings or new approaches to the impact analysis.

Please note that the document includes some placeholders for various text and analyses and that ICF will continue to edit sections for internal consistency.

--

Ann Chrisney Stine

Natural Resource Specialist
DOI Bureau of Reclamation, Bay-Delta Office

801 I. St., Suite 140, Sacramento, California (916) 414-2427

